SPECIFICATIONS OF FR-8062/8122/8252

ANTENNA RADIATOR

Type	Slotted waveguide array open radiator
Length	4 ft (XN12A) or 6 ft (XN13A)
Rotation Speed	24/36/48 rpm
Wind Load	70 kt relative wind
Beamwidth	
4 ft (XN12A):	Hor. 1.9°, Vert. 22°
6 ft (XN13A):	Hor. 1.35°, Vert. 22°

RF TRANSCEIVER

Frequency	9410 ± 30 MHz (X-band)
Output Power	
FR-8062:	6 kW
FR-8122:	12 kW
FR-8252:	25 kW

DISPLAY

Screen Size	12.1" color LCD
Effective Viewing Area	184 (H) x 246 (V) mm
Pixel Number	600 (H) x 800 (V), SVGA
Effective Diameter	184 mm
Echo Colors	32 levels
Echo Trail Gradation	7 levels
Display Modes	Head-up, Course-up**, North-up**, True motion*** ** Heading data required *** Heading and speed data required
Range Units	nm, sm, km
Range Scales and Range Ring Intervals (nm)	
Range:	1/8, 1/4, 1/2, 3/4, 1, 1.5, 2, 3, 4, 6, 8, 12, 16, 24, 36, 48, 64, 72, 96* *96nm available for the FR-8252 only
Rings:	1/16, 1/8, 1/4, 1/2, 1, 2, 3, 4, 6, 12, 16, 18, 24
Minimum Range	25 m on 0.25 nm range
Range Discrimination	20 m or better
Echo Trails	
Type	True or relative trails
Trail Length:	15, 30 sec., 1, 3, 6, 15, 30 min., 12, 24 hour., or continuous Trail
Trail Width:	Narrow, Normal
Plotting Facilities (Required optional board ARP-11)	
Acquisition:	Auto, Manual
Number of targets:	10 targets in 0.1-32 nm
AIS Functions (Data input from AIS is required)	
Symbols:	Sleeping, Activated, Dangerous, Selected, Lost targets
Number of targets:	100 targets max.

INTERFACE

Input	IEC 61162 NMEA0183 Ver. 1.5/2.0
Output	IEC 61162 NMEA0183, Analog RGB video(option)

ENVIRONMENT

Temperature	
Antenna Unit:	-25°C to +70°C (-13°F to +158°F)
Display Unit:	-15°C to +55°C (5°F to +131°F)
Waterproofing	
Antenna Unit:	IEC60529 IPX6
Display Unit:	IEC60529 IPX5 (front panel)

POWER SUPPLY

FR-8062:	10.8-31.2 VDC, 3.2A*
FR-8122:	10.8-31.2 VDC, 3.8A*
FR-8252:	10.8-31.2 VDC, 5.0A*
	*24VDC (windless)

EQUIPMENT LIST

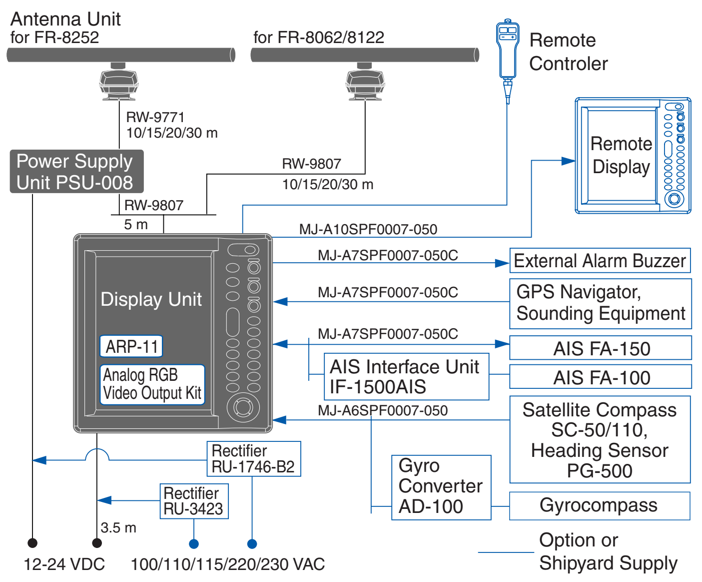
Standard

1. Display Unit	1 unit
2. Antenna Unit (Specify when ordering)	1 unit
3. Antenna Cable 10, 15, 20 or 30 m	1 pc.
4. Power Cable 3.5 m	1 pc.
5. Power Supply Unit for FR-8252	1 unit
6. Installation materials and spare parts	1 set

Option

1. Rectifier	RU-3423
2. Interface Cable	MJ-A7SPF0007-050C, 5 m MJ-A6SPF0007-100, 10 m
3. External Alarm Buzzer	OP03-136
4. Auto Plotter	ARP-11 (built in display unit)
5. Gyro Converter	AD-100
6. AIS Interface Unit	IF-1500AIS
7. Analog RGB Video Output Kit for remote display (built in display unit)	
8. Remote Control	RCU-019-E

INTERCONNECTION DIAGRAM



Display Unit

6.9 kg 15.2 lb

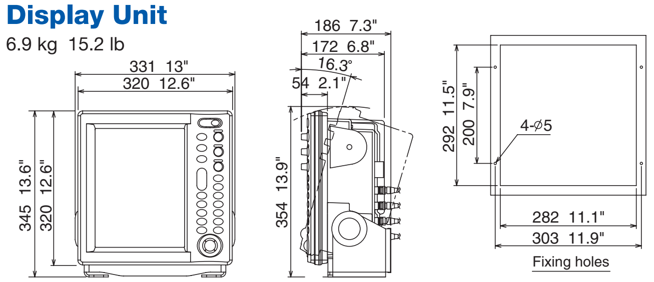
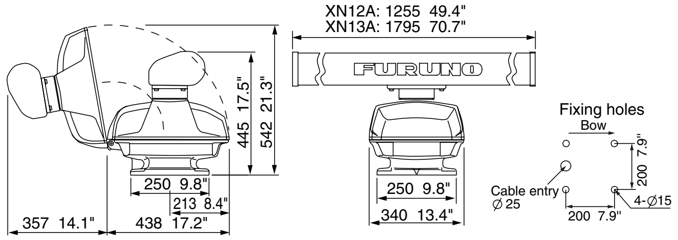


Table-top mount　　Flush mount

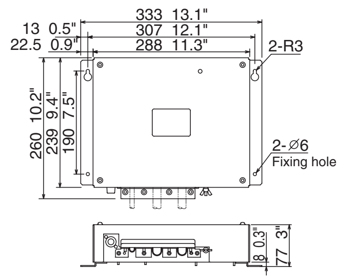
Antenna Unit

XN12A : 25 kg 55.1 lb
XN13A : 27 kg 59.5 lb



Power Supply Unit

PSU-008 (for FR-8252)
2.7 kg 6 lb



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

FURUNO U.S.A., INC.
Camas, Washington, U.S.A.
Phone: +1 360-834-9300
Fax: +1 360-834-9400

FURUNO (UK) LIMITED
Havant, Hampshire, U.K.
Phone: +44 2392-441000
Fax: +44 2392-484316

FURUNO FRANCE S.A.
Bordeaux-Mérignac, France
Phone: +33 5 56 13 48 00
Fax: +33 5 56 13 48 01

FURUNO ESPAÑA S.A.
Madrid, Spain
Phone: +34 91-725-90-88
Fax: +34 91-725-98-97

FURUNO DANMARK AS
Hvidovre, Denmark
Phone: +45 36 77 45 00
Fax: +45 36 77 45 01

FURUNO NORGE A/S
Ålesund, Norway
Phone: +47 70 102950
Fax: +47 70 127021

FURUNO SVERIGE AB
Västra Frölunda, Sweden
Phone: +46 31-7098940
Fax: +46 31-497093

FURUNO FINLAND OY
Espoo, Finland
Phone: +358 9 4355 670
Fax: +358 9 4355 6710

FURUNO POLSKA Sp. Z o.o.
Gdynia, Poland
Phone: +48 58 669 02 20
Fax: +48 58 669 02 21

FURUNO DEUTSCHLAND GmbH
Rellingen, Germany
Phone: +49 4101 838 0
Fax: +49 4101 838 111

LLC FURUNO EURUS
Petersburg, Russia
Phone: +7 812 767 15 92
Fax: +7 812 766 55 52

PRINTED WITH SOY INK 0603XU Printed in Japan

FURUNO World Wide Warranty 2 YEARS

FURUNO®

12.1" Multi-Color LCD RADAR

FR-8062/8122/8252

[6 kW]　[12 kW]　[25 kW]

Optimized detection with variable antenna rotation speed

- 12.1" SVGA color TFT LCD with echo colors of 32 levels
- Superior short range target detection capability
- Advanced auto modes to automatically adjust gain, tuning and AC rain/sea for delivering the best available picture
- 48 rpm antenna for high-speed craft as well as for river use
- True motion echo trail
- Up to three programmable radar settings can be selected to give the best radar performance in different sea conditions
- Auto plotter ARP-11 for automatic acquisition and tracking of 10 targets (option)
- Displays up to 100 AIS targets on the screen (with optional AIS interface.)



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The future today with FURUNO's electronics technology.
FURUNO ELECTRIC CO., LTD.
9-52 Ashihara-cho, Nishinomiya City, Japan Phone: +81 (0)798 65-2111
Fax: +81 (0)798 65-4200, 66-4622 URL: www.furuno.co.jp

Catalogue No. R-190

FURUNO's new high-performance FR-8002 series fully complies with the IEC testing standard for small radar

The FURUNO FR-8002 series is a new 12.1" color radar that displays high quality radar images. The FR-8002 series fully complies with IEC 62252 testing standard for small radar to enhance the safety of your boating life.

The FR-8002 series radar presents outstanding short-range detection capability, detecting objects at the range of 20 m. The distance resolution is as fine as 15 m, helping to distinguish small targets in congested waterways. The maximum detection range has been greatly extended, thanks to the high sensitivity of its antenna radiator.

In addition, its high antenna rotation speed, of 48 rpm, allows the FR-8002 to be utilized on high speed craft and river vessels. The antenna rotation speed can be automatically adjusted according to the selected range scale. The range scale of this radar series can also be switched to display kilometers for use in rivers.

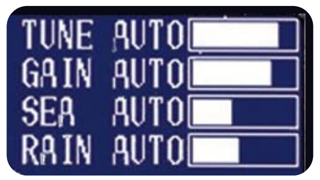


User friendly Control Knobs

Control knobs for fine adjustment of gain, anti-clutter rain and sea.



Advanced Auto Mode



The FR-8002 series is capable of constantly presenting the best possible pictures by simply pressing the respective knobs. The advanced auto mode automatically adjusts the tuning, gain and anti clutter controls. These settings can also be manually adjusted by turning the respective knobs on the front panel.

User Customized Modes



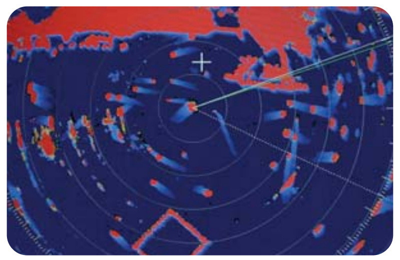
When the vessel is on a regular route or under circumstances such as heavy rain and rough seas where special radar settings are required, the operator may simply press the CUSTOM key to activate the user-customized operating mode. Up to three programs can be registered with specific settings for clutter controls and unwanted echo suppression, antenna rotation speed, etc., according to the given situation and specific usage.

Choice Of Antenna Units

The FR-8002 series offers flexibility in its utilization for river-use, as well as, high-speed craft with its high speed antenna rotation. The antenna rotation speed can automatically be adjusted according to the selected range scale for optimum detection.

	Antenna rotation speed	Output power	Antenna length
FR-8062	24/36/48 rpm	6 kW	Either 4 ft or 6 ft
FR-8122	24/36/48 rpm	12 kW	
FR-8252	24/36/48 rpm	25 kW	

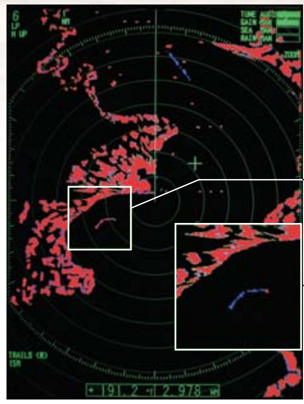
True Motion Echo Trail



When connected with a heading sensor and position receiver, i.e. GPS, the FR-8002 series can display True Echo Trails to present true target movements in accordance with their speed-over-ground and course-over-ground. This mode provides intuitive monitoring of moving targets.

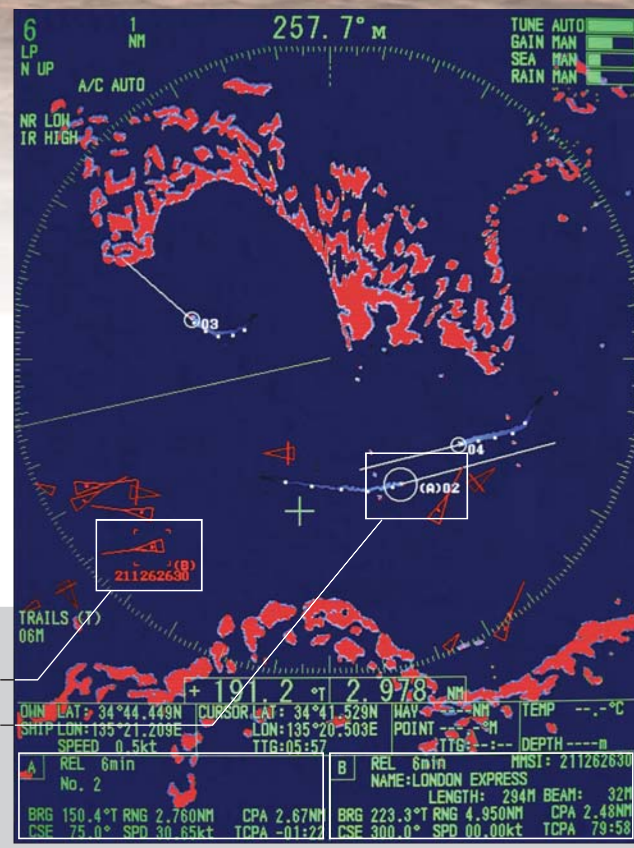
Zoom Mode

There are three zoom modes available for the FR-8002 series to highlight a selected area in a pop-up window, which are relative, true and target zoom. With the target zoom mode, a selected ARP/AIS target is shown and tracked in a zoomed-in window.



ARP/AIS

With the optional ARP board ARP-11, up to 10 targets can be acquired and tracked on the radar screen. Additionally, up to 100 AIS targets can be presented with appropriate AIS data input.
Detailed information on up to two ARP/AIS targets can be displayed in the data cells at the bottom of the screen.



Data Cell A : **ARP Information** Data Cell B : **AIS Information**

In this brochure, the echo images go beyond the outer most ring and cover the data area. The FR-8002 series does that to present wider overview of the surrounding area. The FR-8002 series can also restrict the presentation of echo images within the ring as in the ordinary radar setting.